

IN THE CLAIMS

Claim 1 (Withdrawn, Previously Amended): A c-11 protein comprising an amino acid sequence of SEQ. ID. No. 2, said protein having cell calcification inhibitory activity.

Claims 2-4 (Canceled).

Claim 5 (Withdrawn, Previously Amended): A cell-calcification inhibitor comprising a c-erg protein comprising an amino acid sequence of SEQ. ID. No. 4, said protein having cell calcification inhibitory activity

Claims 6-19 (Canceled).

Claim 20 (Withdrawn): A pharmaceutical composition comprising the protein according to claim 1.

Claim 21 (Withdrawn): The pharmaceutical composition according to claim 20, wherein said composition is intended for a cell-calcification inhibitor.

Claim 22 (Withdrawn): An antibody to the C-11 protein according to claim 1.

Claim 23 (Withdrawn): The antibody according to claim 22, wherein said antibody is a monoclonal antibody.

Claim 24 (Withdrawn): A method for measuring the calcification of cells comprising:

measuring the expression of a C-11 gene or a c-erg gene in the cells.

Claim 25 (Withdrawn): The method according to claim 24, wherein the expression of the gene is measured by the amount of C-11 mRNA expressed in the cells or the amount of c-erg mRNA expressed in the cells using a probe against a DNA sequence specific to the C-11 gene or to the c-erg gene.

Claim 26 (Withdrawn): The method according to claim 24, wherein the expression of the gene is measured by the amount of expression of a C-11 protein in the cells or the amount of expression of a c-erg protein in the cells.

Claim 27 (Withdrawn): The method according to claim 24, wherein the expression of the gene is measured by the amount of the C-11 protein expressed in the cells or the amount of the c-erg protein expressed in the cells by means of the antibody according to claims 22 or 23.

Claim 28 (Withdrawn): A method for diagnosing osteoarthritis or OPLL comprising:

measuring the cell-calcification using a method according to any of claims 24-27.

Claim 29 (Withdrawn): A kit for measuring the cell-calcification of cells comprising either or both of an antibody to a C-11 protein and an antibody to a c-erg protein.

Claim 30 (Withdrawn): A method for screening a substance having cell-calcification inhibitory blocking activity, said method comprising using cells transformed with a gene encoding a protein selected from the group consisting of:

(a) a protein comprising an amino acid sequence having SEQ ID NO. 2;

(b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 2 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity;

(c) a protein comprising an amino acid sequence having SEQ ID NO.

4; and

(d) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 4 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

Claim 31 (Withdrawn): A pharmaceutical composition comprising an erg protein.

Claim 32 (Previously Added): A pharmaceutical composition comprising an erg gene.

Claim 33 ((Withdrawn): A pharmaceutical composition comprising a C-11 protein or a c-erg protein.

D Claim 34 (Previously Added.) A pharmaceutical composition comprising a C-11 gene or a c-erg gene.

Claim 35 (Withdrawn): A pharmaceutical composition comprising a protein having a consensus amino acid sequence between a c-erg protein and a C-11 protein.

Claim 36 (Currently Amended): A nucleic acid which is complementary to at least a portion of a nucleic acid encoding a C-11 protein selected from the group consisting of:

(a) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising the amino acids as set forth in SEQ ID NO:2;

(b) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising amino acids derived from SEQ ID NO: 4 comprising deletion, substitution or insertion of at least one amino acid, wherein said derived protein has cell-calcification inhibitory activity and increases DNA synthesizing ability of cells; and

(c) a nucleotide probe capable of identifying a nucleic acid encoding a protein having cell calcification inhibitory activity,

wherein said complementary nucleic acids (a), (b), and (c) comprise the complement of nucleotides ~~645 to 662 as set forth in~~ that span the splice junction at nucleotide 655 of SEQ ID NO:1.

Claim 37 (Previously Added): The nucleic acid of claim 36, wherein said probe is labeled.

DI Claim 38 (Previously Added): The nucleic acid of claim 37, wherein said label is selected from the group consisting of isotopic and non-isotopic labels.

Claim 39 (Withdrawn): A method of expressing an antisense nucleic acid from an expression vector incorporating a nucleic acid comprised of a nucleotide sequence selected from the group consisting of SEQ ID NO. 1 and the nucleotide sequences encoding the amino acids set forth in SEQ ID NOS. 2 and 4 comprising the steps of:

(i) transfecting a cell with an expression vector comprising the incorporated nucleic acid, wherein said incorporated nucleic acid is transcribed as an antisense molecule; and

(ii) propagating said transfected cell, wherein said antisense expression inhibits cell calcification inhibitory activity in said transfected cell.
